CVS-01 Use of a filter-type distal protection device in percutaneous revascularisation of native coronary arteries

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Introduction Distal embolization of atherosclerotic and/or thrombotic debris occurs routinely during percutaneous coronary intervention (PCI). Prevention of this phenomenon during saphenous vein graft intervention by a distal protection device (DPD) is associated with a reduction in major adverse cardiac events. There are few data on the use of DPDs in native coronary arteries.
Methods The FilterWire EX is a temporary filtration DPD that utilizes a 0.014" guidewire on which is mounted an expandable loop structure attached to a thin porous filter. The filter is made of polyurethane and rotates freely on the end of the guidewire. The loop captures particles which are retained by trapdoor action during retrieval using the delivery sheath. The recommended vessel size is 3.5 to 5.5 mm where the filter loop is placed. The FilterWire EX was used in 35 patients undergoing PCI of native coronary arteries. Clinical and angiographic variables were analyzed.
Results The FilterWire EX was used in 20 left anterior descending arteries, 8 right coronary arteries, and 2 left circumflex arteries. The indications for PCI were: stable angina (17; 48.6%), recent myocardial infarction (MI) (8; 22.9%), stable angina (6; 35%), recent unstable angina (5; 14.3%), acute MI primary PCI (4; 11.4%), and acute MI rescue PCI (1; 2.9%). The vessel diameter at FilterWire EX deployment was 2.89 ± 0.54 mm (range 1.71 mm to 4.42 mm; 88.6% <3.5 mm). The wire was used to cross the lesion directly in 23 patients (65.7%), using a conventional guidewire as "buddy wire" in 5 patients (14.3%), requiring lesion predilation in 5 patients (14.3%), and following thrombectomy in 2 patients (5.7%). The device was successfully deployed and retrieved in all cases. Flow impairment was noted in 8 patients (22.9%) after deployment of the device but was restored to normal after retrieval. Reversible vasospasm occurred in 11 (31.4%) patients. There was no death, myocardial infarction, and dissection in each of the patients.
Conclusion The use of the FilterWire EX appears to be safe in native coronary arteries even with a diameter <3.5 mm at the site of deployment. There are no complications related to its use. Large randomized controlled trials are needed to prove the efficacy and safety of this device.

CVS-02 Prevalence of diabetes mellitus (DM) in the Hong Kong Cardiovascular Risk Factor Prevalence Study cohort

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Introduction: 2881 randomly chosen Hong Kong men and women participated in the Hong Kong Cardiovascular Risk Factor Prevalence Study in 1995-6. After 6 years the subjects are recalled for follow up. Here we report the prevalence of DM in the restudied subjects.
Method: 813 subjects (393 men, 420 women; age 51±12 yrs) were randomly chosen from the cohort and were studied in the morning after overnight fasting. A medical history was obtained from each patient. A 2-hour oral glucose tolerance test was performed.
Results: The prevalence of DM in 1995-6 and 2001-2 is 9.6% and 15.5% respectively ($p<0.001$). After adjusting for age, the prevalence of DM has increased by 35.1% ($p<0.001$).
Conclusion: The prevalence of DM rises sharply with age, especially after the age of 55. The prevalence of DM in the elderly is alarmingly high and shows a rising trend.

Prevalence of DM in percentage. The number of subjects is given in brackets.

Age		<35	35-44	45-54	55-64	65-74	>74
1995-6	Male	2.0 (305)	5.8 (378)	7.5 (267)	18.6 (242)	21.7 (161)	—
	Female	1.4 (286)	3.2 (474)	10.9 (294)	21.2 (203)	29.3 (150)	—
2001-2	Male	3.3 (30)	10.3 (97)	9.6 (114)	23.9 (67)	32.9 (70)	33.3 (15)
	Female	4.3 (23)	5.2 (115)	6.0 (150)	28.4 (67)	36.2 (47)	44.4 (18)

In 2001-2, the prevalence of DM in >64 years is 32.9±5.1% in men and 38.5±6.0% in women.